

July 1, 1999

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Magalie Roman Salas
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Federal Communications Commission
445 12th Street, TW-A325, SW
Washington, DC 20554

VIA FEDERAL EXPRESS
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**Re: CC Docket No. 94-102 – Reply Comments of Integrated Data
Communications, Inc.**

Dear Ms. Salas:

Per Public Notice DA 99-1049, dated June 1, 1999, enclosed for filing in the above-referenced docket are the original and five (5) copies of *Reply Comments of Integrated Data Communications, Inc.*

If you have any questions, please feel free to call me at 206.623.4711. Thank you.

Very truly yours,

ATER WYNNE LLP


Angela Wu

Encls.

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INTEGRATED DATA COMMUNICATIONS

REPLY COMMENTS

July 1, 1999

*In the Matter of Requests for Comments on Wireless E911
Phase II Automatic Location Identification Requirements*

*Section 20.18(e) of the Commission's Rules for E911
CC Docket No. 94-102*

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**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C.**

In the Matter of)	
)	
Requests for Targeted Comment)	CC Docket No. 94-102
on Wireless E911 Phase II)	
Automatic Location Identification)	DA 99-1135
Requirements, and)	
)	
Technical Roundtable on)	
Implementation of Automatic)	
Location Identification for)	DA 99-1243
Enhanced 911 Technologies)	
Section 20.18(e) of the)	
Commission's Rules for E911)	

REPLY COMMENTS OF INTEGRATED DATA COMMUNICATIONS, INC.

Integrated Data Communications, Inc. (IDC)¹, submits these reply comments in response to comments filed by other interested parties to the Wireless Telecommunications Bureau Request for Targeted Comment on E911 Phase II Automatic Location Identification Requirements, DA 99-1049, rel. June 1, 1999 (Request for Targeted Comments), pursuant to the Public Notice, Reply Comment Deadline Changed for Targeted Comment on E911 Phase II Automatic Location Identification Requirements, DA 99-1135, rel. June 9, 1999, and pursuant to the Public Notice, Technical Roundtable on Implementation of Automatic Location Identification for Enhanced 911 Technologies, DA 99-1243, rel. June 23, 1999 (Technical Roundtable).

¹ IDC is located at 750 Ericksen Ave.NE, Bainbridge Island, Washington 98110. Telephone # 206.842.9262 (email:www.placethecall.com)

I. INTRODUCTION

IDC appreciates the recognition by Dale Hatfield, Chief of the Office of Engineering and Technology, at the Technical Roundtable that the handset solution appears to be a viable alternative for wireless carriers to provide E911. IDC wishes to point out, that consistent with Mr. Hatfield's request for additional hard core data on handset technology, that IDC filed its report of its six month field trial to the King County E911 program office in the Commission's E911 docket on May 28, 1999². IDC agrees that other vendors or wireless carriers should also submit their field trial results to the Commission for review.

To clarify, IDC is a vendor with a signaling protocol, a technology, in conjunction with a handset-based GPS, that can provide wireless carriers with the capability to transmit location data with voice, with increased accuracy and reliability up to 40 feet, 90% of the time. IDC's technology works with all wireless standards (AMPS, N-AMPS, TDMA, GSM, CDMA, and iDEN).

II. NO TECHNOLOGY PROVIDES A FLASHCUT SOLUTION

When the Commission first initiated its rulemaking on E911, the only viable solution seemingly available to the wireless industry was a network solution. The network solution is based on several key assumptions such as: (1) triangulation (T-DOA) or the caller's angle to the site (AOA) will accurately find the 911 call, (2) implementation time for network upgrades will be rapid if not immediate, (3) control channel congestion will not interfere with rapid transmission of 911 calls to PSAPs, and (4) cost recovery mechanisms will be available to reimburse wireless carriers for the cost of implementing a network solution.

² IDC Report to King County E911 Program Office, Washington, Ex parte filing, May 28, 1999. Highlights of the report are summarized in the ex parte letter with attachments.

A. T-DOA Assumes Three Cell Sites Are Available; AOA Assumes Two Sites Are Available and Requires Antenna Modification

T-DOA network solutions cannot immediately provide Phase II location capabilities to areas where wireless carriers³ do not have three cell sites available to triangulate the location of the 911 call. Many locations in the United States are not covered by three cell sites (e.g., rural areas, mountainous terrain, along highways, forested areas, federal highway corridors).

AOA network solutions cannot find the caller unless modification to the antenna arrays are made to cell sites. Thus, the cost of building or modifying additional cell site towers to meet the Commission's E911 Phase II requirements is necessary to implementation of any network solution, and it will be costly for wireless carriers. The current trend of wireless carriers to outsource their site management (e.g., Nextel outsourcing to Spectrasite) only complicates this process further. In addition, obtaining zoning and building permits for additional cell site towers is becoming increasingly difficult as cities and local municipalities balk at allowing more unsightly cell site towers (e.g., with additional antennae arrays) to be built.

1. A 911 Call From a Wireless Handset Receives Less Power the Closer the 911 Caller is to a Cell Site Tower

The closer a 911 caller is to a cell site tower, the less power that caller's wireless handset will transmit because the handset automatically enters into a power down mode. This means that a network solution may not receive enough power to determine the location of the 911 call when in very close proximity to the cell site, regardless of the type of technology used (i.e., T-DOA or AOA). This could be a significant problem in urban areas where cell sites are highly concentrated.

2. Location From a Single Cell Site Tower

Some network solution vendors suggested at the Technical Roundtable that provisioning of location from a single cell site is possible. This solution is currently being developed for either T-DOA

³ Examples of wireless carriers that serve rural areas are: US WEST, Sprint, AirTouch, AT&T, Western Wireless, and VoiceStream.

or AOA technologies when either technology is used in the cell site. But, is that technology available now? And, is location from a single cell site available now for all interface formats used in the U.S.? This means N-AMPS, AMPS, CDMA, TDMA, GSM and iDEN. When will it be available? And does it require additional buildout antenna or equipment to get the location of the 911 call from either technology. Where are test results? If there is no certainty on when that technology can be available, how will rural wireless carriers, or wireless carriers that hold licenses in rural areas, fully comply with the Commission's Phase II deadline using a network solution? Finally, no single technology provides a flashcut solution.

3. *Proximity to Cell Site Tower Diminishes Location*

One of the issues raised, during the Technical Roundtable, was whether a network solution can provide an accurate location when the 911 caller is within 300 feet of the closest cell site tower. Location accuracy is apparently a problem, particularly in downtown areas, where cell site towers are highly concentrated. IDC suggests that the Commission should investigate this issue further.

B. Network Solution Assumes Ability to Immediately Upgrade Wireless Carrier's Infrastructure Throughout Its Markets

IDC is skeptical as to whether a network solution can be implemented in time to meet the Commission's current Phase II deadline. Modification, whether external (antennas), or internal (equipment), take time and the use of different, or a combination, of different technologies to make it possible for a wireless carrier to locate a 911 call. IDC described the list of activities that must occur to implement a solution that relies upon modifications to a wireless carrier's network in its comments, but IDC believes it should reiterate them here:

- (1) Tower loading and equipment shelter evaluation to determine if the site can support the physical and electrical load of the equipment antennas. *Typical turnaround:* 1 to 3 weeks;
- (2) Request for landlord approval in the form of a fully executed lease modification for additional equipment or antenna to support the technology. *Typical turnaround:*

1 to 3 months. Many leases are "by the stick" (antenna) and/or "by the rack" (equipment), so the wireless carrier must obtain a lease modification --- often at a higher per-month price -- prior to conducting any work. Violators could forfeit their lease and be without coverage in a highly valued area; additional modifications -- or expansion -- to the equipment shelter may also be needed to accommodate the equipment -- at additional expense and time;

- (3) Request for groundlease landlord approval (if applicable) - also in the form of a lease modification - for the additional equipment and/or antenna to support the solution. *Typical turnaround:* 1 to 3 months. This is where the wireless carrier has an additional lease for the ground in which the site is located - typical in monopole structures in rural and suburban areas;
- (4) Request for and obtain additional interconnect at the cell site to support the solution (if applicable). *Typical turnaround:* 1 to 3 months for the LEC;
- (5) Zoning approval for the change in antenna type, or number of antennas, required for the cell site (required in most jurisdictions as it effects the aesthetics of the site). *Typical turnaround:* 3 months to 1 year. All together, this can take approximately 12 months or more in certain jurisdictions with particularly tough zoning regulations. If any of those towers were constructed with special arrays for aesthetic purposes (e.g. church tower, faux tree), modification may be impossible without substantially changing - and revealing - the cell site;
- (6) Obtaining of permits for the cell site change (may be done concurrently with zoning):
Typical turnaound: 2 to 6 weeks;
- (7) Installation of the equipment and/or antenna upon completion of modified lease, zoning, and permitting of the cell site. *Typical turnaround:* 1 to 3 weeks;

(8) Addition cell sites to obtain location to Phase II requirements if served by only 1 cell site includes: Leasing, zoning, permitting, construction, integration, and testing. *Typical turnaround*: 6 months to 1 year; and

(9) Final integration and testing of the modified site upon completion of all of the above steps. *Typical turnaround*: 1 to 3 weeks. This process involves numerous parties which can cause a cascading series of delays: the tower owner, the zoning board, legal teams for leases, the LEC (for additional interconnect), contractors, and other companies involved in this industry.

Any incidental modifications of the site pattern (additional sites, omni to sector conversions) may require additional changes to the antenna arrays at the site, or new equipment, thus repeating the process described above all over again.

1. Can a Wireless Carrier Meet the Phase II Deadline On Time With a Network Solution?

Wireless carriers do not, and network solution providers should not, underestimate the time delays and costs of modifying a cell site, regardless of how small the antenna or equipment is for the solution. Wireless carriers only need to review the timing of the engineering steps that must be achieved to change a cell site from omni to sector, to find an analogy that is appropriate. And, to keep in mind that each of these steps must be done to over 70,000 sites. If each wireless carrier were to implement a network-based solution, the process would be repeated for each carrier. If multiple wireless carriers in the same market implement a network solution, the time frames described above could be exponentially increased because the time to make changes to a wireless carrier's infrastructure will require access to the same resources, the same zoning boards, the same contractors, by each and every one of the wireless carriers that choose to implement a network solution.

Any additional modifications (for example, upgrades on a going-forward basis), depending upon the type of implementation, may require the addition of hardware, software, and changes to infrastructure (particularly the signaling infrastructure) at the mobile switch or the network itself. For example, network providers may utilize a Service Control Point architecture which will require additional data links and service from an ALI provider. Certain network solutions require an additional piece of equipment in the mobile switching center itself to manage the traffic from the modified or new cell site. In most major MSAs, there are a minimum of 4 wireless carriers (A side, B side, PCS, and iDEN). Each of these wireless carriers would have to introduce new pieces of hardware and software into the infrastructure. This would require engineering by the network solution provider for each of the wireless carriers to complete the solution.

In some areas, modifications may be prohibited because there is no additional physical space to allow upgrades to an existing cell site tower, or the wireless carrier is not permitted to load additional equipment onto an existing monopole, or the weight limitations for additional structural loading on a rooftop is already maximized, or the ability to install any more electronics is thwarted because shelter capacity has also reached its physical limits. In such cases, the wireless carrier will need to find a new location for additional equipment, or build another new cell site tower. This could cost the wireless carrier an additional \$75,000 to \$150,000 per relocation.

Lastly, given the time frames described above, a wireless carrier that wishes to implement a network solution, would need to commit to a network solution within the next month or two, in order to have enough time to meet the Commission's current Phase II October 1, 2001 deadline. Comments filed by wireless carriers indicate that they have not committed to either a network or a handset solution at this time but are still in the process of investigating location technologies. So, how will a wireless carrier, that chooses a network solution, meet the Commission's Phase II deadline on time? It seems clear that the network approach cannot provide a flashcut solution to any wireless carrier.

C. Control Channel Congestion May Interfere With Wireless Carrier's Ability to Quickly Transmit 911 Calls to PSAPs

A network solution is not a flashcut answer to the Commission's objectives for E911 Phase II because obtaining location information when it relies upon the control channel fails to result in, (1) accurate tracking of the 911 call, and (2) delays due to congestion in the control channel.

1. Cell Site Towers Cannot Accurately Track The 911 Call

The nature of a control channel's limited capability of "finding" does not allow continuous "tracking" of the call as it is handed off to another cell site tower (and another control channel). The function of a control channel is to direct a call - not to track the location of the mobile caller. Thus, with a network solution, the location information of a 911 call is only available at the time of the call set-up. Once that call is connected, the control channel redirects its focus to the next call coming in.

A good example is the recent hostage situation where the wife of a well-known football player and their 10-month old baby was car-jacked. That 911 call, even while in process, cannot be tracked with a network based solution. Instead, the public safety dispatcher had to listen to the directions being given by the hostage to determine the location of the moving vehicle that had been car-jacked (see attachment A). In public safety situations like this, IDC's technology could have enabled the PSAP to find the location of the carjackers within seconds. A key feature of IDC's technology is its ability to track a 911 call, even if the caller is mobile. IDC's technology can track a call because it sends location data with the voice, and therefore, it can continuously update location information so long as the 911 caller remains on the wireless handset.

D. Technical Capabilities of PSAPs and Cost Recovery for Phase II

It may not be realistic to assume that all PSAPs across the country will be technically capable of Phase II implementation at the same time. While it is in the public interest for the Commission to continue to push for a rapid Phase II implementation, the realities of technical limitations cannot be ignored. Lastly, only 30 states have implemented Phase I cost recovery mechanisms to date.

Therefore, even if a network solution is implemented, a wireless carrier cannot provide a flashcut solution for all wireless subscribers without cost recovery mechanisms for Phase II in place soon.

E. Network Solution Vendors Assume Sufficient Cost Recovery Mechanisms Will Be Available To Reimburse Wireless Carriers For Cost Of Implementing A Costly Network Upgrade

As reported in many articles, implementation of the Commission's E911 Phase I requirements has been held back by numerous issues, in particular, by lack of cost recovery mechanisms (*see Attachment B*). Costs for Phase I implementation are significantly less than estimates for implementation of a network solution for Phase II. How quickly can states provide sufficient cost recovery mechanisms for Phase II, given the history of lack of cost recovery for the less costly Phase I?

Based upon prior history of the issues related to network build-out timeframes, and the technical limitations of cell site signal strength, and the control channel, can a network solution provide wireless carriers with a flashcut solution by October 1, 2001? IDC suggests that network solution vendors, (and wireless carriers that are currently considering a network solution approach), take a step back and seriously consider whether they should also request a phase-in approach of their own to providing location for Phase II because many wireless carriers, particularly rural wireless carriers, are concerned about their ability to be in compliance with Phase II for all calls, by the Commission's current October 1, 2001 deadline.

III. IDC's TECHNOLOGY MEETS COST RECOVERY ESTIMATES FOR PHASE I

In IDC's comments, IDC provided estimated costs for its technology to the wireless carrier and to the PSAP.

A. Cost Of IDC's Technology For New Handsets

IDC estimates that putting its location technology and a GPS chip into the handset will increase the retail price of the handset by approximately \$10.00, a price increase which is often subsidized by

the wireless carrier, through discounts, promotional sales, or service contracts. As the prices of handsets drop every year,⁴ IDC believes that any increase in the price of a “location-enabled handset” will be temporary as both production and competition drive the price down. If any short-term price increase is necessary, wireless carriers can market the additional “value” of location enabling technology – similar to the way that features such as caller ID, voice dialing, and speaker phones were offered at a price premium when they were first introduced to subscribers.

The increase in the purchase price of a new wireless “location-enabled” handset will not be discernable as other components of the handset continue to go down in price. In terms of cost recovery, IDC estimates that the (temporary) increased cost of a “location-enabled handset” will be the equivalent to approximately 80 cents per handset per month for only the first year of ownership. In addition, given that location capability will be used by the wireless carriers as a tool to compete and increase market share, the marketplace will continue to force down the cost of handsets to consumers.

B. Cost of IDC’s Technology to PSAPs

IDC estimates that the total cost of location-enabled handset technology to the PSAPs is approximately 10 to 25 cents per month per handset. This amount includes the modest cost for IDC’s signaling protocol which enables the transport of location data with voice. One of the significant differences in cost between IDC’s technology and other technologies is that it provides location information in the call-path (i.e., voice channel), and thereby requires only minor modifications to existing PSAP networks and customer premise equipment. Typically, such modifications to the PSAP’s network involve installation of a GPS antenna and a communications receiver.

If the PSAP chooses to use IDC’s selective routing feature, then it only needs to add IDC’s technology to its router, which involves only a minor modification to the Local Exchange Carrier’s

⁴ *Donaldson, Lufkin and Tenrette’s Wireless Survey Report (DLJ ‘99 Report) projects the average price of a wireless phone dropping from \$234 to 214 (today) to \$153 to 141 (by 2003). Analog wireless phone prices will drop to less than \$100 in the same period.*

existing equipment. IDC made all necessary modifications to existing call-taker and selective router equipment during its field trial for the King County E911 Program Office.

C. Handset Solution Enables Clear Separation of E911 and Commercial Uses For Purposes of Subsidization For Only E911 Use

One of the controversies surrounding Phase II is the concern by PSAPs that wireless carriers are using E911 as a subterfuge to pay for the implementation of location technology, and the ongoing subsidization, of commercial applications of location technology. Public Safety organizations, and state legislators, do not want to sanctify a tax on consumers to subsidize commercial application of location technology, when it may make wireless carriers a lot of money. Many wireless carriers, on the other hand, may not choose to utilize location technology commercially, and thus they do not want to pay for E911 unless they can recover costs for implementation.

IDC suggests that a handset approach could result in a dramatic reduction in costs for public safety by leveraging off the scale and scope of the commercial deployment of location technology. A handset approach may be in a better position, than a network approach, to respond to market forces that will make handset prices decrease due to volume demand and production scale [from 26 million handset per year to 43 million handsets per year].⁵ Because the handset is in the control of the consumer, the Commission should let market forces direct demand for ALI-enabled handsets and price. Costs between public safety use and commercial applications can easily be separated, with IDC's technology, and with the handset as the only common denominator. Therefore, the Commission should let commercial services thrive independent of public safety cost considerations.

1. Handset is Significantly Less Expensive Than Network Solution

Implementation costs for a handset solution is significantly less than projected costs for the network solution. And, the handset approach provides location with greater accuracy with lower costs to the wireless carriers, PSAPs, and the consumer.

⁵ DLJ '99 Report

In AirTouch's reply comments on the Petition for Waiver of Section 20.18(3), cost estimates to implement the network solution were quoted to be approximately \$5,000 to \$50,000 per cell site, with approximately 70,000 cell sites nationwide today, and an estimated 100,000 cell sites by 2002. Total estimates to implement a network solution range between 500 million o 5 billion dollars.⁶

Estimates for IDC's technology, as described in Section III, are easily much less than cost estimates for the network solution and therefore, IDC's technology will enable wireless carriers and PSAPs to have greater success at obtaining cost recovery mechanisms for Phase II.

D. IDC's Handset Solution Provides Several Options For Roamers

IDC recognizes that the Commission continues to be concerned about how wireless carriers can locate a 911 call from a mobile wireless subscriber that roams into a market that uses a different location technology. Based upon the comments filed by interested parties thus far, it does not appear that there is sufficient data to determine how serious the roamer issue is today. However, IDC will briefly summarize here, how its technology can minimize the problem of roaming.

First, if any single wireless carrier in a market with multiple wireless carriers chooses to implement a handset-based approach to Phase II, that PSAP will be location-enabled and capable of obtaining location information from *any* roamer with a location-enabled handset. In other words, if a PSAP is capable of obtaining location information from *one* handset solution carrier, it can support as *many* enabled carriers as are introduced in that market. Second, several major wireless carriers are building a national footprint, and if any of those carriers choose the handset-based approach, it will implement the handset-based solution throughout its footprint. Third, any PSAP can purchase a low priced IDC receiver unit which will enable that PSAP to receive and translate that caller's location information. And lastly, if a PSAP is not location-enabled, nor does it have an IDC receiver unit, when

⁶ *AirTouch Reply Comments to Petition for Waiver of Section 20.18(3) (Handset Waiver Public Notice), February 22, 1999, pg.17.*

a caller roams to an outside market where a handset-based solution has not been implemented, and that caller does not have IDC's technology in the handset, the 911 call will simply default to providing location information based upon cell site and sector location information (i.e., Phase I).

IV. UPGRADE TO HANDSETS WILL BE QUICK AND EASY GOING-FORWARD

A. Handsets Will Simply Require Software Upgrades to Update Them With The Latest In Location Technology Going-Forward

Once equipment manufacturers obtain clarification from the Commission that its rules for Phase II recognizes a handset solution as an acceptable approach to meeting Phase II requirements, many equipment manufacturers have stated they will begin building ALI-enabled handsets world-wide. For example, Motorola announced that it would integrate SnapTrack's GPS feature to its mobile devices.⁷ Qualcomm announced that its next generation of ASIC will allow for handset-based ALI. Marketing presentations from NOKIA to wireless carriers show location technology in the wireless handset as one of the many new applications it plans to provide in the future.

Unlike the infrastructure upgrades required by a network solution, as described in section II.B. above, ALI-enabled handsets will only require, (1) the integration of a GPS chip, today, the size and weight of a lady bug, (2) software in the handset, and (3) and an integrated GPS antenna. Future upgrades for the handset approach will simply involve integration of even smaller chips, software upgrades, or upgrades can be fully integrated into existing software and hardware.

I. GPS Antenna

During IDC's meeting with Commission Staff,⁸ a prototype of a small GPS antennae, was shown to demonstrate how easily a GPS antenna can fit into existing wireless handsets.

⁷ "Motorola Partners with SnapTrack to Bring Personalized Location Services to Mobile Consumers Worldwide," April 26, 1999.

⁸ See IDC Ex Parte, May 28, 1999 and June 3, 1999.

B. Market Churn Will Take Care of Legacy Analog Handsets

In its comments, AirTouch proposed that any changes to current E911 Phase II requirements that enable wireless carriers to choose a handset approach should apply only to digital phones. Based upon estimates by Donaldson, Lufkin and Jenrette in its 1999 Wireless Survey, analog phones as a percentage of the current base, is predicted to drop significantly from approximately 50% today, to 18% in 2003 as owners of analog replace their phones with digital technology. Also, the survey indicates that the number of phones purchased as replacement phones will rise from 38% in 1998 to nearly 70% in 2003. That means two-thirds of the phones sold will replace existing phones, and the replaced phones will be re-circulated into the market at an even lower percentage.

IDC's technology works with all wireless standards, and it has field tested several different wireless handsets. If the Commission chooses to require a retrofit for analog or existing digital wireless handsets, IDC's technology can provide a retrofit battery solution.⁹ This retrofit could be offered for sale by the wireless carrier, retail outlet, or other distribution channel as an additional feature. In fact, IDC believes that major automotive clubs will offer this battery retrofit as an accessory to their existing subscriber base, coupled with additional location-based commercial services.

V. IDC's PROPOSED HANDSET WAIVER CRITERIA

One of the major concerns reflected in the comments filed by interested parties, particularly wireless carriers, and questions during the Technical Roundtable, seem to revolve around the need for crystal clarity on compliance with the Commission's Phase II requirements. Clarification was requested on both, the Commission's methodology for measuring the percentage of calls that are located, and how a wireless carrier will know it is in compliance with the Commission's Phase II requirements if it chooses to implement a handset approach.

⁹ See IDC's Comments to Request for Targeted Comments on Wireless Full Phase I Automatic Location Identification Requirements, June 10, 1999.

A. Measuring Methodology

As IDC explained in its comments, when IDC first looked at the Commission's requirements for Phase II, it accepted the fact that the Root Mean Square (RMS) methodology was the only acceptable measuring standard. Thus, IDC developed its technology assuming that it had to meet the Commission's Phase II requirements based upon the RMS measure. However, due to the controversy around the measuring methodology, and per King County's request, IDC's report of its field trial to King County were presented in a raw format.

1. Results Under RMS

Only 6% of the 911 calls made by IDC during the field trial fell outside the Commission's Phase II requirements, but every one of those calls were located. King County did not wish to throw out any of the calls, nor adjust for the infinity problems with RMS, by placing any bounds (i.e., assumptions) on the variables. Therefore, under the Commission's RMS measure, if IDC had thrown out those 6% of 911 calls outside the Commission's Phase II requirements, IDC's field trial results would have been even better. Thus, IDC believes that RMS is an appropriate measure and an achievable standard for location technology.

B. IDC's Proposed Clarification of Phase II Rules

Wireless carriers, equipment manufacturers, and handset vendors need clarification that the Commission's E911 Phase II rules do permit wireless carriers to choose other technologies, in addition to the network approach, to meet its Phase II requirements. IDC recognizes that it will not be easy to draft a waiver [or rule change] that is: (1) technologically and competitively neutral, (2) meets the objective of the Commission to ensure that Public Safety interests are met in terms of accuracy, reliability, and immediate implementation, and (3) provides wireless carriers with choice and a reasonable implementation schedule based upon market churn.

IDC has attempted to consider all of these concerns, and respectfully submits its draft of a waiver [or rule change] to the Commission for consideration:

(e) **Phase II enhanced 911 services.** As of October 1, 2001, licensees subject to this section must provide to the designated Public Safety Answering Point the location of all 911 calls by longitude and latitude such that the accuracy for all calls is 125 meters or less using a Root Mean Square (RMS) methodology,

(1) *“ a licensee may also meet its obligations under subsection (e), by implementation of a network, handset, hybrid, or other technological solution, to provide location of 90% of all 911 calls using a phase-in approach, if that licensee commits to meet a higher accuracy and reliability standard, by providing increased accuracy of 90 meters or better using a [FCC selected measure] methodology, and the licensee meets the following conditions:*

- (i) *begins providing ALI prior to the October 1, 2001 deadline, and effective Jan. 1, 2001, all handsets sold on a going forward basis will be ALI-capable;*
- (ii) *commits to develop marketing programs and education of consumers on the benefits of ALI; and*
- (iii) *beginning January 1, 2002, submits annually, until 90 percent penetration is reached, objectively verifiable statistics that the licensee is making rapid progression toward its obligation to provide location for all 911 calls in its markets.*

C. Let the Market Do The Job

In IDC's comments, it submitted that more aggressive penetration rates or benchmarks could be achieved based upon historical market churn and the increasing percentage of new sales that replace existing handsets that are then “throwaways”.¹⁰ IDC continues to believe that the market will itself

¹⁰ IDC's estimates on how quickly the handset-based approach could be implemented by wireless carriers are based upon the churn history of the wireless industry. Attached to IDC's comments was an Excel chart “Penetration Estimates for Location-Enabled Handsets,” reflecting IDC's projections on how quickly the handset solution could be implemented. The figures below are based upon projections shown on in the Excel chart, a start date of the 3rd quarter of 2000, and include IDC's projections on new sales, sales as replacement of churn, churned handsets, and battery retrofits:

- 42% penetration by 3rd quarter, 2001
- 69% penetration by 2nd quarter, 2002
- 85% penetration by 2nd quarter, 2002
- 100% penetration by 2nd quarter, 2003

quickly foster implementation of location technology if the Commission acts soon. Wireless carriers can maximize penetration of ALI-enabled handsets if they can use the current high rate of handset churn to transition to a handset technology. Subscribers are moving from analog to digital handsets, and later they will transition to handsets capable of new wireless applications such as commercial location uses, and wireless data. The Commission can let the market do the job of getting ALI-enabled handsets to all wireless subscribers for wireless carriers that choose to implement a handset solution.

For example, despite the proven effectiveness of airbags to save lives, the government recognized that a change in technology required a phased-in approach. The car industry successfully implemented airbag requirements by using market churn prior to any mandate of 100% compliance. According to the Insurance Institute for Highway Safety, over 87 million (43.6%) of the 200 million cars and light trucks on U.S. roads have driver airbags. This was accomplished during a transition period of automotive churn (approximately 8 years) and without the availability of a “retrofit.”

In the car industry, approximately one million new vehicles are sold each month, which is 12 million new automobiles per year, as compared to 30 million new wireless handsets that were sold in 1998. By law, beginning with models in 1998, all new passenger cars were required to have driver and passenger airbags and safety belts. Light trucks are subject to the same requirement beginning with the 1999 model.

Implementation of airbag requirements was achieved by market forces; customers demanding this safety feature. Arguments for “non-enabled airbag cars” were made, but a phased-in, market-driven approach was taken instead. Today, airbags saves lives while mitigating customer cost, and unnecessary inconvenience to automobile manufacturers. Automobile manufacturers were not required to recall and retrofit all cars manufactured prior to 1998. Rather, market churn combined with improved technology was the preferred approach.

The DLJ ‘99 Report states that there were 26 million handsets sold in the United States in 1998, and that the net additions were 14 million (12 million were replacement/churn). This shows that 39% of all phones could have been ALI-enabled in 1998. IDC suggests that the transition of

approximately 66% of wireless handsets with location technology will be closer to 2 years, based upon current statistics on handset churn rates.

Based upon the numbers below, going-forward by year end 2001, 37% of all wireless handsets could be ALI-enabled. By year end 2002, 66% of all wireless handsets could be ALI-enabled. And, by year-end 2003, 90% of all wireless handsets could be ALI-enabled, without any retrofit.

<u>Total Handsets Sold</u>				
<u>1999</u>	<u>2000</u>	<u>2001</u>	<u>2002</u>	<u>2003</u>
36m	39m	43m	45m	44m

<u>Net Additions</u>				
<u>1999</u>	<u>2000</u>	<u>2001</u>	<u>2002</u>	<u>2003</u>
16m (84m)	18m (102m)	17m (119m)	15m (134m)	13m (147m)

<u>Replacement/Churn</u>				
<u>1999</u>	<u>2000</u>	<u>2001</u>	<u>2002</u>	<u>2003</u>
20m	21m	26m	30m	31m

VI. CONCLUSION

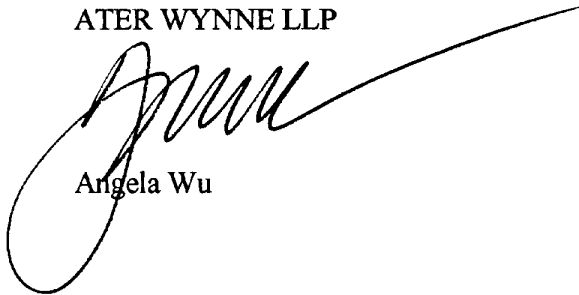
Like the airbag analogy, the Commission could similarly rely on the marketplace to effectuate its public safety goals for the wireless industry by using market churn to do the job for Phase II, and still achieve the same safety objectives that airbags serve - to save lives.

Since the Commission did not intend for its implementation deadline to hamper the deployment of the “best and most efficient ALI technologies,” IDC urges the Commission not to be swayed by arguments that the public interest would not be served by permitting a phased-in implementation. Any solution, whether network or handset, will need to be phased-in. And, a handset solution can provide increased accuracy and reliability of location information to help to save lives in the years to come.

IDC suggests that, in the interest of technological and competitive neutrality, action by the Commission is warranted, and the public interest is best served by, granting handset waivers [or rule change] to wireless carriers that wish to implement a handset solution on a phased-in basis. The wireless carriers that choose to implement a handset solution will be meeting a higher standard by providing a location technology that provides increased accuracy and reliability to meet both Phase II requirements and public safety goal of saving lives.

Submitted By,

ATER WYNNE LLP

A handwritten signature in black ink, appearing to read 'Angela Wu', with a long, sweeping horizontal line extending to the right.

Angela Wu

cc: Dan Allen, President
Dan Preston, CTO, Co-Founder

CERTIFICATE OF SERVICE

I, Linda Baker, hereby certify that on this 1st day of July, 1999, copies of the foregoing "Reply Comments of Integrated Data Communications, Inc." in CC Docket No. 94-102, in response to DA-1135 and DA-99-1243, were served by Federal Express Next Day Air or regular mail on the following:

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Attachment A

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4/29/99 Associated Press (Pg. Unavail. Online)
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Thursday, April 29, 1999

Jets Player's Wife Foils Carjack

FAYETTEVILLE, Ga. (AP) - A quick-thinking mom foiled a carjacking by secretly calling 911 on her cell phone and sneaking clues to the dispatcher about what was going on while pretending to talk to the driver.

Esther Green and her 10-month-old daughter were in the back seat of their car outside a store in this Atlanta suburb, waiting for a friend, when a man climbed into the front seat and drove off Monday afternoon.

After he picked up another man, Ms. Green, the wife of New York Jets defensive back Victor Green, reached into her diaper bag and dialed 911 on her cellular phone, keeping it hidden in the bag.

To let the dispatcher know she had been kidnapped, she told the driver: "Please stop the car. Please. It's not worth all this. You can have the car. You can have the car. Please let me get my baby out of the car,"

And to describe their location for the dispatcher, she asked him to let her out at landmarks along the way, mentioned a route number and gave hints on what direction the car was going. "You're making a left?," she said. "Why are you making a left? Why are you turning?"

She had no idea if anyone was listening at the other end, but dispatcher Holly Eason was.

"At first I assumed it was going to be a domestic situation," Ms. Eason said today when she and Ms. Green met for the first time on ABC's "Good Morning America." But when the friend Ms. Green was waiting for also called to report the car's disappearance, "we put two and two together and realized we had a carjacking-kidnapping situation going on," she said.

Ms. Eason said her directions were very helpful. "She was doing really well as far as advising that she was heading northbound and landmarks that she was passing," she said.

Ms. Green said she was prepared to jump out of the car with the baby - not knowing whether anyone was listening on the other end of her phone - when she finally saw a cop car drive by.

4/29/99 ASSOCPR (No Page)

(Publication page references are not available for this document.)

"After that I realized that help was on the way and I could sit tight with the baby and just pray that it came out the way that it did," she said. "It could not have happened better."

She feigned surprise when the police pulled them over: "Oh, my God, they want you stop."

Stephen Eric Bonnett, 18, of Little Hocking, Ohio, and David E. McDonald, 21, of Belpre, Ohio, were charged with kidnapping and auto theft. They were held in the Fayette County Jail without bond. Police said Bonnett was the driver and McDonald was the man who climbed in later.

----- INDEX REFERENCES -----

KEY WORDS: GENERAL FOOTBALL NEWS
NEWS SUBJECT: Sports & Recreation; Football (SPT FTB)
STORY ORIGIN: FAYETTEVILLE, GA.
NEWS CATEGORY: SPORTS STORIES, GAME SUMMARIES

Word Count: 455

4/29/99 ASSOCPR (No Page)

END OF DOCUMENT

Attachment B

FCC Seeks E911 Report, Cites Program Disarray

In an effort to end a policy impasse, the FCC has asked representatives of the wireless industry and public safety agencies that forged a plan to implement enhanced "911" (E911) service to explain why the service rollout has been delayed. The FCC said "confusion and disagreements" had marked implementation of the lifesaving technology and asked why some wireless carriers apparently hadn't provided E911 service when asked to do so by public safety agencies that had met their responsibilities under a government-industry agreement.

In a public notice released June 9 (Common Carrier docket 94-102), the Commission asked the Cellular Telecommunications Industry Association, the Association of Public Safety Communications Officials International, Inc., the National Emergency Number Association, and the National Association of State Nine-One-One Administrators to report by August 9 on cost-recovery and technology issues have been slowing the service rollout.

Surveys have shown that only a small fraction of the nation's emergency dispatch centers are equipped to locate emergency callers using wireless phones, even though FCC rules on the matter have been in place for more than a year, the Commission said. It expressed concern that the months-long delay in fully implementing the first phase of E911 capability could spill over into the second phase of the program.

The FCC recently requested additional comments on E911 issues, in an effort to narrow disagreements over technology for the second phase of the program (TR, Feb. 22; and June 7, notes).

An agreement that CTIA and the public safety organizations signed is the framework for the FCC's E911 policy. Under Phase I of that policy, carriers were required to provide by April 1, 1998, a caller's automatic number identification for callback purposes and to furnish the location of the base station receiving the call. Phase II requires the carriers by Oct. 1, 2001, to provide public safety answering points with the location of a wireless caller, within 125 meters (412.5 feet). A wireless carrier need not provide E911 service, however, unless it receives a request from a safety dispatch agency that is equipped to use the data and has a cost-recovery mechanism in place.

In its public notice the FCC observed that according to a recent survey, only 7% of safety dispatch centers reported that they were equipped to handle Phase I data. "The primary reason given for negative responses is the

lack of a funding mechanism, while the other reason is that the [dispatch center] equipment is not ready," according to the public notice.

"We are concerned that, in addition to Phase I, similar disputes over [the] cost-recovery mechanism and technology choice are negatively affecting early attempts to prepare for Phase II implementation," it said. "Issues have been identified that have contributed to implementation delays and are the result of ambiguities in the initial Consensus Agreement and the E911 rules."

The Commission said it had delegated to carriers and public safety officials a significant amount of flexibility to design cost-recovery methods, in hopes that they would develop "innovative solutions and avoid delays that may result from meeting an inflexible prescription. However, the flexibility we gave to the parties has not produced the prompt implementation we envisioned. It now appears that disputes have arisen between carriers and state or local '911' authorities." TR

6/14, '99 MOBLCOMREP

FCC requested **wireless** and public safety communities June 9 to submit written report outlining steps to resolve recent disputes delaying first phase of **E911** location rules that took effect last year. Disputes over cost recovery and technology have slowed deployment of equipment and service, which ~~was~~ supposed to be in place by April 1998 to give emergency officials callback and location information. Report, due Aug. 9, is intended to help "speed **E911** implementation," FCC said. Commission vowed to decide "expeditiously" once report has been filed. FCC said recent reports show "pace for implementation is very slow," with just 7% of public safety access points (PSAPs) indicating they had service as required. In most cases, lack of funding mechanism and readiness of PSAPs has stalled process, officials said. "We are concerned that, in addition to Phase 1, similar disputes... are negatively affecting early attempts to prepare for Phase 2 implementation," FCC said. Phase 2 requires pinpointing phone's location. At issue is 1996 consensus agreement among CTIA and 3 leading emergency communication groups -- Assn. of Public Safety Communications Officials International, National Emergency Number Assn., National Assn. of State Nine One One Administrators -- covering numerous issues, including cost recovery. Parties had outlined for Commission how and when they would reach goals in 1998, and Oct. 2001 for final phase. Since agreement proposed state and local funding for cost recovery, FCC declined to prescribe additional measures: "The flexibility we gave to the parties has not produced the prompt implementation we envisioned." States haven't agreed on cost recovery, with only Ind. and Ohio collecting surcharges for **E911** rules, FCC said. Inability of PSAPs and carriers to agree on technology created "an impasse" that is impediment to implementation, it said. Commission also expressed concern that even in communities where cost and technology have been decided, carriers and PSAPs have failed to implement

rules. Earlier, FCC **Wireless** Bureau, citing industry concerns about its **E-911** location rules, requested "targeted" comments on 3 specific issues related to automatic location identification (ALI) technology. Bureau requested comments by June 17 and replies by June 28 on: (1) Whether to adopt standards for handsets offered by SnapTrack and Assn. of Public Safety Communications Officers (APCO). (2) How to handle roaming and handset turnover issues that will surface when customers move among different **wireless** systems. (3) Whether to modify methodology for determining ALI accuracy. Commission in 1997 required **wireless** carriers to provide location information by latitude and longitude, accurate to within 125 m, using root mean square (RMS) technology. Ericsson and **E-911** Implementation Ad Hoc group told FCC that current RMS method includes possibility of very small inaccurate measures. Bureau issued notice June 2. Rules are to take effect Oct. 1, 2001.

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Federal Communications Commission
445 12th St., S.W.
Washington, D.C. 20554

FCC 99-132
Released: June 9, 1999

**COMMISSION SEEKS TO FACILITATE WIRELESS E911 IMPLEMENTATION
AND REQUESTS A REPORT /CC Docket No. 94-102**

INTRODUCTION

In the wireless Enhanced 911 (E911) proceeding, the Commission has required covered wireless carriers to provide enhanced 911 capabilities according to a phased-in approach. Implementation of Phase I of our E911 rules has not occurred as anticipated by the timetable in the rules and we believe that action with respect to two key implementation questions could expedite the pace of Phase I implementation. By this Public Notice, we seek additional information that will help the Commission speed E911 implementation.

Specifically, the E911 implementation schedule and requirements are, in significant part, based upon a Consensus Agreement between representatives of the wireless industry and public safety authorities that depends upon their cooperation to resolve a number of practical issues. It now appears that issues relating to cost recovery mechanisms and choice of Phase I transmission technologies may be causing delays in E911 implementation. These issues also are the subject of petitions for reconsideration and clarification of the E911 Reconsideration Order and the E911 rules.

We have been informed that these issues are the subject of recent discussions among the parties to the initial Consensus Agreement. We seek to provide these parties an opportunity to augment the record on the petitions. We request a report to inform us of the status of the discussions on these issues and the outcomes. This request is consistent with these parties' ongoing reporting requirement and our commitment to remain actively involved by taking such actions as necessary to achieve E911 implementation. This will ensure that any further action we take will take into account the most recent positions of the parties. Other interested parties are encouraged to give consideration to these issues. We anticipate that any reports or comments by the parties to the Consensus Agreement will be made available to all interested parties for review and comment.

Finally, it has come to our attention that, in some cases, Phase I services are not being provided even where the two conditions in our E911 rules would appear to be met to require implementation. In these cases, States have adopted a cost recovery mechanism and the carrier has received an appropriate request for Phase I service. We request the parties to the Consensus Agreement to include this related issue in their discussions and inform us in the report of their positions on the factors, if any, that may be responsible for implementation delays in these cases, which will be made available to all interested parties for review and comment.

BACKGROUND

The Commission adopted rules to establish an improved 911 emergency service for users of wireless telephones in the E911 First Report and Order and the E911 Reconsideration Order, which were the culmination of extensive efforts by the public safety community, the wireless telecommunications industry, and the Commission. The E911 rules are based largely upon a framework submitted to the Commission in a Consensus Agreement by the Cellular Telecommunications Industry Association (CTIA) and three national public safety organizations - the Association of Public-Safety Communications Officials International, Inc. (APCO), the National Emergency Number Association (NENA), and the National Association of State Nine One One Administrators (NASNA).

Covered carriers in the Commercial Mobile Radio Services (CMRS) are required to provide 911 features such as callback and location information to Public Safety Answering Points (PSAPs) that request the service. Firm target dates were set to promote and achieve prompt and timely deployment. Phase I required carriers to provide by April 1, 1998, a caller's Automatic Number Identification (ANI) for callback and the location of the cell site or base station receiving the call for a rough location determination. Phase II requires the carrier provide by October 1, 2001, a 911 caller's Automatic Location Identification (ALI) that identifies the location of all 911 calls within 125 meters using a Root Mean Square (RMS) methodology. A carrier, however, is not required to implement E911 services unless two conditions are met: (1) that the carrier has received a request for service from a PSAP capable of receiving and utilizing the data, and (2) that a mechanism for recovering the costs of the service is in place.

Although the Commission's E911 rules apply to carriers, implementation of E911 depends upon the cooperative efforts of carriers and State or local 911 authorities to find solutions that ensure the E911 capabilities are deployed in an effective manner within the timetable. Based on the Consensus Agreement, the Commission concluded that the parties would work cooperatively to resolve implementation issues and declined to undertake additional measures to address implementation concerns at that time. The Commission, however, made clear its intention to remain actively involved and to take whatever action may be necessary to achieve timely and efficient implementation. The parties to the Consensus Agreement, as well as additional parties, were requested to file an annual joint report detailing the status of implementation and what can be done to expedite resolution of the issues.

While the date by which we expected Phase I to be launched by carriers was April 1, 1998, recent filings in the record and other sources of information reveal the pace for

implementation is very slow. For example, the 1998 Joint Annual Status Report informs us that NENA conducted a nationwide survey of PSAPs to see how many requested Phase I service as of September 30, 1998. Of the total number of questionnaires returned, only seven percent answered yes to Phase I implementation. The primary reason given for negative responses is the lack of a funding mechanism, while the other reason is that the PSAP equipment is not ready. Thus, it appears that the two conditions that trigger a carrier's Phase I service obligation may contribute to the delay. Indeed, among the obstacles identified by the 1998 Joint Annual Status Report to Phase I implementation are questions by both carriers and PSAPs on what is an adequate cost recovery mechanism and which party selects the Phase I transmission method and related technology.

We are concerned that, in addition to Phase I, similar disputes over cost recovery mechanisms and technology choice are negatively affecting early attempts to prepare for Phase II implementation. As discussed more fully below, issues have been identified that have contributed to implementation delays and are the result of ambiguities in the initial Consensus Agreement and the E911 rules. We are encouraged that these issues are the subject of discussions by the parties to the Consensus Agreement, and we seek to ensure that the parties update the Commission on their discussions in a timely manner.

COST RECOVERY MECHANISMS

In the E911 First Report and Order, the Commission found that carriers and public safety officials in both the Consensus Agreement and individual filings uniformly recognized that resolving cost recovery issues is a prerequisite to E911 deployment. The Consensus Agreement proposed to rely on State or local funding mechanisms and the Commission, in response, agreed that such mechanisms as a general matter are permissible. Accordingly, the Commission included in its rules the requirement that a mechanism for recovering the costs be in place. The Commission declined, however, to prescribe any particular cost recovery methodology at the time, in part, to encourage the development of innovative solutions and avoid delays that may result from meeting an inflexible prescription.

However, the flexibility we gave to the parties has not produced the prompt implementation we envisioned. It now appears that disputes have arisen between carriers and State or local 911 authorities, which are described both in the record on the pending petitions and the 1998 Joint Annual Status Report, on the definition of an adequate funding mechanism.

Recently, the potential difficulties that these parties may have in implementing an adequate cost recovery mechanism in a particular situation are illustrated in a report prepared by the Department of Revenue of the State of Washington based on a study directed by the State Legislature seeking ways to implement E911. The Washington Funding Study finds that, because the State has no cost recovery mechanism for E911 service and the PSAPs have no additional funding to pay for E911, E911 service has not been implemented in the State. As for funding mechanisms, the Study believes there are two approaches to consider. One option is described as "bill and keep," and relies on carriers to recover their costs from their own subscribers and on PSAPs to fund their own equipment upgrades. The Study notes that a

potential disadvantage of this mechanism is that it may not be allowed as a funding mechanism under the Commission's rule. The other option is a State tax that funds both carriers and PSAPs, but among the disadvantages that are noted are the difficulties in passing a new tax or calculating an acceptable tax rate and the inherent delays and expenses of a legislated solution.

A recent update of State E911 legislative activity indicates that about half have adopted specific funding mechanisms for E911, generally in the form of line-item surcharges on wireless customer bills. However, very few PSAPs have requested, and very few wireless carriers have implemented, Phase I and, as a result, only a small percentage of wireless users have the advantage of Phase I service. Included in the Washington Funding Study are the results of a State survey that found only Indiana and Oregon were collecting their wireless E911 surcharges and reimbursing carriers for Phase I in some parts of each State. It appears that confusion and disagreements among interested parties about the cost recovery condition for Phase I implementation may be contributing to this situation. We are encouraged that the parties to the Consensus Agreement are discussing the cost recovery issues.

CHOICE OF TECHNOLOGY

In the E911 First Report and Order, the Commission determined that the extensive technical and operational issues and standards necessary for implementation are best resolved by the expertise of the parties through their ongoing processes for consultation and standards setting. There were no significant differences between the parties on such implementation issues and it was agreed that the parties would proceed in good faith with the task. The 1997 Joint Annual Status Report identifies the development of the official standard, J-STD-034, for Phase I that includes two types of transmission methodologies and PSAP connections for Phase I information. Both of these transmission methods were discussed in the E911 First Report and Order.

However, there are disputes in the record on the petitions for reconsideration and clarification between carriers and PSAPs over which method, and the related technologies, to use when the PSAP requests Phase I service. According to the 1998 Joint Annual Status Report, the availability under the official standard of multiple transmission options can be an implementation issue absent cooperation and coordination among the interested parties that make up a particular 911 system. There also are multiple technologies, so that differences between the PSAP and carrier on which party makes the selection can result in an impasse and be a major impediment to E911 implementation. It appears that differences between a carrier and a PSAP have led to such results in at least one instance.

We are encouraged that the parties to the Consensus Agreement also are addressing this question to reconcile the delays with the timetable and the processes that they agreed would ensure prompt implementation. We find it reasonable that carriers may want to choose one technology for the transmission of their Phase I data in order to take into account a systemwide application in the interest of cost efficiency and effectiveness. On the other hand, a PSAP must take into account its own individual system, which is made up of both wireline and wireless networks, and the public funds on which the system depends. In addition, the determination of

the technology and the cost recovery mechanism can be related. PSAPs seek a role in choosing the technology if they must provide the funding mechanism to reimburse carriers, whereas carriers that recover the costs through their rates seek to control the determination.

OTHER ISSUES

Finally, it has come to our attention that Phase I services are not being provided in some cases even where the two conditions for service under our E911 rules appear to be met. In these cases, States have adopted an E911 cost recovery mechanism and the carrier has received an appropriate request from a PSAP with the technological capabilities of receiving the transmissions. We request the parties to the Consensus Agreement to address this issue in their current discussions and what factors, if any, may be responsible for the delay in Phase I implementation in these cases. Inasmuch as the delays in these cases are related to the two issues the parties are currently discussing, it is appropriate that they include in the report their positions on such delays and any outcomes of such discussions. By augmenting the record on this issue, as well, we seek to ensure that whatever action we may take achieves our goals for timely and efficient E911 implementation.

FILING SCHEDULE

In furtherance of our commitment to the timely and effective deployment of E911 service, we ask the parties to the Consensus Agreement to submit a report to us on the issues described above not later than August 9, 1999. It is appropriate they have an opportunity to address the ambiguities in their original agreement and recommend alternatives for resolving these issues. The report should reflect the status of their discussions and the positions of the various parties participating in these discussions. Other interested parties are encouraged to give consideration to these issues. We anticipate that any reports or comments by the parties to the Consensus Agreement will be made available to all other interested parties for review and comment to ensure a complete record. We intend to issue a decision expeditiously on the pending petitions for reconsideration and clarification of the E911 Reconsideration Order upon the completion of the filings.

To file formally in this proceeding, participants must file an original and five copies of all comments. If participants want each Commissioner to receive a personal copy of their comments, an original and ten copies must be filed. All comments should be filed with the Office of the Secretary, Federal Communications Commission, 445 12th Street, S.W., Washington, D.C., 20554, referencing CC Docket No. 94-102. Paper filings also can be received at a designated counter located at TW-A325 in the 12th Street lobby of the Portals II Office Building from 8:30 a.m. to 7:00 p.m., Monday through Friday, except holidays. This proceeding is a permit-but-disclose proceeding governed by the provisions of Section 1.1206 of the Commission's Rules, 47 C.F.R. § 1.1206.

FURTHER INFORMATION

For further information, contact Barbara Reideler at 202-418-1310, Wireless Telecommunications Bureau, Policy Division.